सूक्ष्म, लघु एवं मध्यम उद्यम मंत्रालय
DEVELOPMENT COMMISSIONER
MINISTRY OF MICRO, SMALL & MEDIUM ENTERPRISES

MSME TECHNOLOGY CENTRE

QUALIFICATION FILE

JR. TECHNICIAN (ELECTRONICS EQUIPMENT)

☒ Short Term Training (STT) ☐ Long Term Training (LTT) ☐ Apprenticeship

☐ Up skilling ☐ Dual/Flexi Qualification ☐ For ToT

☐ General ☐ Multi-skill (MS) ☒ Cross-Sectoral (CS) ☐ Future Skills ☐ OEM

NCrF/NSQF Level: 3.0

Submitted By:

MSME TECHNOLOGY CENTRE

O/o DC MSME, Ministry of Micro, Small and Medium Enterprises

Govt. of India

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Section 1: Basic Details

<table>
<tr><td>1.</td><td>Qualification Name</td><td colspan="2">JR. TECHNICIAN (ELECTRONICS EQUIPMENT)</td></tr>
<tr><td>2.</td><td>Sector/s</td><td colspan="2">Electronics & HW</td></tr>
<tr><td>3.</td><td>Type of Qualification: ☒ New ☐ Revised ☐ Has Electives/Options

☐OEM</td><td>NQR Code & version of existing/previous qualification:
(change to previous, once approved)

QG-03-EH-02382-2024-V1-MSME</td><td>Qualification Name of existing/previous version:

Electronics Equipment Technician (EET)</td></tr>
<tr><td>4.</td><td>a. OEM Name
b. Qualification Name
(Wherever applicable)</td><td colspan="2">NA

-</td></tr>
<tr><td>5.</td><td>National Qualification Register (NQR) Code & Version

(Will be issued after NSQC approval)</td><td>QG-03-EH-02382-2024-V1-MSME</td><td>6. NCrF/NSQF Level: 3.0</td></tr>
<tr><td>7.</td><td>Award (Certificate/Diploma/Advance Diploma/Any Other) (Wherever applicable specify multiple entry/exits also & provide details in annexure)</td><td colspan="2">Certificate</td></tr>
<tr><td>8.</td><td>Brief Description of the Qualification</td><td colspan="2">Learner who attain this qualification are competent to carry out electronic gadgets repair jobs. Learned candidates are qualified to work as Electronics Equipment Technician, Television Installation Man, Dish Television Installer, Television Service & Repairman and Communication Devices Repairman. Qualified learner can also start their own repair workshop or choose to be an entrepreneur.</td></tr>
<tr><td>9.</td><td>Eligibility Criteria for Entry for Student/Trainee/Learner/Employee</td><td colspan="2">a. Entry Qualification & Relevant Experience:
<table>
<tr><th>S. No.</th><th>Academic/Skill Qualification (with Specialization - if applicable)</th><th>Required Experience (with Specialization - if applicable)</th></tr>
<tr><td>1</td><td>Grade 10 pass</td><td>nil</td></tr>
<tr><td>2</td><td>Previous relevant Qualification of NSQF Level 2.5</td><td>1.5 year relevant experience</td></tr>
</table></td></tr>
</table>

<table>
<tr><td></td><td></td><td colspan="2">b. Age: 15 years</td></tr>
<tr><td>10.</td><td>Credits Assigned to this Qualification, Subject to Assessment (as per National Credit Framework (NCrF))</td><td>20</td><td>11. Common Cost Norm Category (I/II/III) (wherever applicable) : I</td></tr>
<tr><td>12.</td><td>Any Licensing requirements for Undertaking Training on This Qualification(wherever applicable)</td><td colspan="2">NA</td></tr>
<tr><td>13.</td><td>Training Duration by Modes of Training Delivery (Specify Total Duration as per selected training delivery modes and as per requirement of the qualification)</td><td colspan="2">☐ Offline ☐ Online ☒ Blended
<table>
<tr><th>Training Delivery Modes</th><th>Theory (Hours)</th><th>Practical (Hours)</th><th>OJT Mandatory (Hours)</th><th>OJT Recommended (Hours)</th><th>Total (Hours)</th></tr>
<tr><td>Classroom (offline)</td><td>53</td><td>330</td><td>60</td><td>-</td><td>493</td></tr>
<tr><td>Online</td><td>157</td><td>-</td><td>-</td><td>-</td><td>157</td></tr>
<tr><td>Total</td><td>210</td><td>330</td><td>60</td><td></td><td>600</td></tr>
</table>
(Refer Blended Learning Annexure for details)</td></tr>
<tr><td>14.</td><td>Aligned to NCO/ISCO Code/s(if no code is available mention the same)</td><td colspan="2">7421.03/ Electronic Mechanic</td></tr>
<tr><td>15.</td><td>Progression path after attaining the qualification (Please show Professional and Academic progression)</td><td colspan="2">Professional/Career Progress: Technician (Electronics Equipment)

Academic Progress: Jr. Technician (Electronics Equipment) (NCrF/NSQF Level 3) ➔ PCB Design and Manufacturing (NCrF/NSQF Level 3.5)</td></tr>
<tr><td>16.</td><td>Other Indian languages in which the Qualification & Model Curriculum are being submitted</td><td colspan="2">Hindi</td></tr>
<tr><td>17.</td><td>Is similar Qualification(s) available on NQR-if yes, justification for this qualification</td><td colspan="2">☐ Yes ☒ No URLs of similar Qualifications</td></tr>
</table>

18.	**Is the Job Role Amenable to Persons with Disability**	☒ **Yes** ☐ **No** **If "Yes", specify applicable type of Disability: As per Govt. Norms.**	
19.	**How Participation of Women will be Encouraged**	**Seats are reserved as per government Norms.**	
20.	**Are Greening/ Environment Sustainability Aspects Covered** *(Specify the NOS/Module which covers it)*	☒ **Yes** ☐ **No** **NA**	
21.	**Is Qualification Suitable to be Offered in Schools/Colleges**	**Schools:** ☐ **Yes** ☒ **No** **Colleges:** ☒ **Yes** ☐ **No** Subject to availability of resources.	
22.	**Name and Contact Details of Submitting / Awarding Body SPOC** *(In case of CS or MS, provide details of both Lead AB & Supporting ABs)*	**Name: Sh. Vijay Mahipatrao Bankar** **Contact No. +0755 3501078** **Email-msmetcab@gmail.com**	
23.	**Final Approval Date by NSQC:30.04.2024**	**24. Validity Duration: 3 years**	**25. Next Review Date:30.04.2027**

Section 2: Module Summary

NOS/s of Qualifications,

(In exceptional cases these could be described as components)

Mandatory NOS/s:

Specify the training duration and assessment criteria at NOS/ Module level, for further details refer curriculum document.

Th.- *Theory* ***Pr.***- *Practical* ***OJT***- *On the Job* ***Man.***- *Mandatory Training* ***Rec.***- *Recommended* ***Proj.***- *Project*

S. No	NOS/Module Name	NOS/ Module Code & Version *(if applicable)*	Core/ Non-Core	NCrF/NSQF Level	Credits as per NCrF	*Training Duration (Hours)*					*Assessment Marks*					
						Th.	Pr.	OJT-Man.	OJT-Rec.	*Total*	*Th.*	*Pr.*	*Proj.*	Viva	Total	Weightage (%) *(if applicable)*
1	Acquire the concepts of Electronic Devices & Circuits	MSME/EET/01	**Core**	**3.0**	**6**	**60**	**100**	**20**	-	**180**	**100**	**100**	-	-	**200**	
2	Learn and apply Industrial Instrumentation Techniques	MSME/EET/02	**Core**	**3.0**	**3**	**60**	**40**	**20**	**-**	**120**	**100**	**100**	-	-	**200**	
3	Electronics Equipment Repair & Maintenance Skills	MSME/EET/03	**Core**	**3.0**	**10**	**60**	**190**	**20**	**-**	**270**	**100**	**100**	**-**	**-**	**200**	
4	Employability Skills	MSME/ES/01	**Non-Core**	**3.0**	**1**	**30**	**-**	**-**	**-**	**30**	**100**	**-**	-	-	**100**	
Duration (in Hours) / Total Credit / Marks					**20**	**210**	**330**	**60**	**-**	**600**	**400**	**300**	**-**	**-**	**700**	

Elective NOS/s:

S. No	NOS/Module Name	NOS/ Module Code & Version *(if applicable)*	Core/ Non-Core	NCrF/NSQF Level	Credits as per NCrF	Training Duration (Hours)					Assessment Marks					
						Th.	Pr.	OJT-Man.	OJT - Rec.	Total	Th.	Pr.	Proj.	Viva	Total	Weightage (%) *(if applicable)*

Optional NOS/s:

S. No	NOS/Module Name	NOS/ Module Code & Version *(if applicable)*	Core/ Non-Core	NCrF/NSQF Level	Credits as per NCrF	Training Duration (Hours)					Assessment Marks					
						Th.	Pr.	OJT-Man.	OJT - Rec.	Total	Th.	Pr.	Proj.	Viva	Total	Weightage (%) *(if applicable)*

Assessment - Minimum Qualifying Percentage:

Specify any one of the following:

Minimum Pass Percentage –Aggregate at qualification level: *(Every Trainee should score specified minimum aggregate passing percentage at qualification level to successfully clear the assessment.)*

Minimum Marks to pass Theory Exam: 40%

Minimum Marks to pass Practical Exam: 60%

Minimum Pass Percentage –NOS/Module-wise: *(Every Trainee should score specified minimum passing percentage in each mandatory and selected elective NOS/Module to successfully clear the assessment.)*

Minimum Marks to pass Theory Exam: 40%

Minimum Marks to pass Practical Exam: 60%

Section 3: Training Related

1.	**Trainer's Qualification and experience in the relevant sector (in years)** *(as per NCVET guidelines)*	Diploma/Degree in Electronics Engineering or equivalent with Practical skills and knowledge required in the relevant job role at least one level higher i.e level 3.5 and above in related field and minimum 2 years of experience in Tool Room/Technology Centre of MSME or any reputed industry will become a trainer, or in accordance with the ToT guideline of NCVET.
2.	**Master Trainer's Qualification and experience in the relevant sector (in years)** *(as per NCVET guidelines)*	Degree in Electronics Engineering or equivalent with 3 to 5 years of experience in Production/Training/Design Department from Tool Room/Technology Centre of MSME or any reputed industry will become as a Master Trainer, or in accordance with the ToT guideline of NCVET.
3.	**Tools and Equipment Required for Training**	☒ Yes ☐No (*If "Yes", details to be provided in Annexure)*
4.	**In Case of Revised Qualification, Details of Any Upskilling Required for Trainer**	Yes

Section 4: Assessment Related

1.	**Assessor's Qualification and experience in relevant sector (in years)** *(as per NCVET guidelines)*	Diploma/Degree in Electronics Engineering or equivalent with 3 years of experience in Production/Training/Design Department from Tool Room/Technology Centre of MSME or any reputed industry. Only (ToA) certified assessors will be able to conduct the assessments.
2.	**Proctor's Qualification and experience in relevant sector (in years)** *(as per NCVET guidelines)*	Degree in Electronics Engineering or equivalent with 5 years of experience in Production/Training/Design Department from Tool Room/Technology Centre of MSME or any reputed industry.
3.	**Lead Assessor's/Proctor's Qualification and experience in relevant sector (in years)** *(as per NCVET guidelines)*	Post Graduate in the relevant discipline with minimum 5 years of experience in Production/Training/Design Department from Tool Room/Technology Centre of MSME or any reputed industry.
4.	**Assessment Mode** *(Specify the assessment mode)*	**Blended Type (Online+Offline)**
5.	**Tools and Equipment Required for Assessment**	Same as for training ☒ Yes ☐ No *(details to be provided in Annexure-if it is different for Assessment)*

Section 5: Evidence of the need for the Qualification

Provide Annexure/Supporting documents name.

1.	**Latest Skill Gap Study (not older than 2 years) (Yes/No): Yes,** Human Resource and Skill Requirements in the Electronics and IT Hardware Industry India Skills Report 2023, "Roadmap to India's Skills and talent Economy 2030" – "IT Sector/ Electronics"
2.	**Latest Market Research Reports or any other source (not older than 2years) (Yes/No):** Yes https://www.transparencymarketresearch.com/electronic-equipment-repair-service.html
3.	**Government/Industry initiatives/requirement (Yes/No):** Yes
4.	**Number of Industry validation provided:** 30

5.	**Estimated nos. of persons to be trained and employed:** Approx. 500 per year
6.	**Evidence of Concurrence/Consultation with Line Ministry/State Departments:** Yes If "No", why:

Section 6: Annexure & Supporting Documents Check List

Specify Annexure Name/Supporting document file name

1.	**Annexure:** NCrF/NSQF level justification based on NCrF level/NSQF descriptors *(Mandatory)*	*Annexure-I*
2.	**Annexure:** List of tools and equipment relevant for qualification *(Mandatory, except in case of online course)*	*Annexure-II*
3.	**Annexure:** Industry Validations Summary	*Annexure-III*
4.	**Annexure:** Training & Employment Details	*Annexure-IV*
5.	**Annexure:** Blended Learning *(Mandatory, in case selected Mode of delivery is "Blended Learning")*	*Annexure-V*
6.	**Annexure:** Detailed Assessment Criteria *(Mandatory)*	*Annexure-VI*
7.	**Annexure:** Assessment Strategy *(Mandatory)*	*Annexure-VII*
8.	**Annexure:** Acronym and Glossary *(Optional)*	*Annexure- VIII*
9.	**Annexure:** Multiple Entry-Exit Details *(Mandatory, in case qualification has multiple Entry-Exit)*	*NA*
10.	**Supporting Document:** Model Curriculum *(Mandatory – Public view)*	*Annexure- IX*

11.	**Supporting Document:** Career Progression *(Mandatory - Public view)*	*This aspect mentioned in point no. 15*
12.	**Supporting Document:** Occupational Map *(Mandatory)*	*Annexure-X*
13.	**Supporting Document:** Assessment SOP *(Mandatory)*	*Annexure- XI*
14.	Any other document you wish to submit:	*NA*

Annexure I: Evidence of Level

NCrF/NSQF Level Descriptors	Key requirements of the job role/outcome of the qualification	How the job role/outcomes relate to the NCrF/NSQF level descriptor	NCrF/NSQF Level
Professional Theoretical Knowledge/Process	Attend to service requests. Assess the problem reported. Give estimate of the time required to accomplish the repair. If any change of parts required give approximate cost of the replacement. If replacement part not available with the mechanic give estimate of time required for the part to be available.	An Electronics Equipment Technician works in three kinds of assignments installation, servicing & maintenance and sometimes in manufacturing. Generally, there are service requests inputs based on which the mechanic acts. Learner collects first information from the customer and then analyses the problem by his own observation and tests during which his skills come into play. Since the products on which learner provides his services are not unlimited learner is more or less familiar with the situation and can generally predict the problem at his first observation.	3
Professional and Technical Skills/	Knowledge of electronic components identification and it's working.	An Electronics Equipment Technician has to have thorough knowledge of the equipment which learner is attempting to repair. Learner also has to have	3

Expertise/ Professional Knowledge	Knowledge of equivalence of components so that if the exact component is not available its equivalent can be used. Knowledge of operating various gadgets/appliances/equipments/machines. Knowledge of various parts/modules of equipment.	knowledge of the individual modules of that equipment. This in depth knowledge helps him to troubleshoot the problem in many folded approach. First learner tries to see the problem from silly faults, if that does not prove to be true learner then has to go to the depth of the modules for which learner needs thorough knowledge of the components of the modules.	
Employment Readiness & Entrepreneurship Skills & Mind-set/Professional Skill	Methodic disassembly of gadgets/appliances/equipments/machines Visual checking of appropriate connection of modules. Visual checking of electronic components in a PCB. Testing of electronics components. Replacing any faulty part. Soldering & desoldering.	In conducting the repair, a lot of skills of the Electronics Equipment Technician come into act. Learner has to make sure that when disassembling the system, learner goes by a systematic approach and does not induce scratch on the equipment. The disassembled fixtures are to be safely kept to be used again during assembly. Learner has to make sure that the resoldered part is aligned in the right manner/polarity. These skills are required repetitively in his work/activity. Though the type of equipments on which learner may work is large but the basic skills required are the same.	3
Broad Learning Outcomes/Core Skill	Do basic mathematical calculations. Use tools appropriately. Communicate in local language in oral and written. Locate and reach the place of complaint.	Electronics Equipment Technician should be in touch with the customer to get repair jobs regularly. It is not necessary that the call is always for a breakdown, but can also be for installation and regular maintenance. Learner needs to be able to communicate and also needs to be aware of the social, political and natural environment.	3
Responsibility	Responsible to attend to service requests on time, assess the magnitude of the problem and give estimate of the time & cost required to accomplish the repair.	An Electronics Equipment Technician is responsible to attend to the call on time, listen to the problem reported, analyze and approach the problem and give solution.	3

		Learner needs to keep improving himself so that learner is able to adapt to the new products.	

Annexure II: Tools and Equipment (Lab Set-Up)

List of Tools and Equipment for Batch Size: 20

S. No.	Tools / Equipment Name	Specification	Quantity for specified Batch size
1	Computer	Industry Standard	10
2	Soldering Iron		10
3	Multimeter		5
4	CRO		5
5	Function Generator		5
6	DC Power Supply		5
7	Bread Board Trainer		5
8	Microprocessor Trainer Kit		5
9	LED/LCD TV Trainer Kit		1
10	LCD/LED TV for Fault Finding		5 Number Each
11	Basic Electronics Trainer Board		5
12	A to D Convertor		5

13	D to A Convertor		5
14	Digital Trainer Kit		5
15	SMD Work Rework Station		1
16	PLC Trainer		1
17	Voltage Stabilizer Trainer Kit		5
18	Transformer Winding Machine		1

Annexure III: Industry Validations Summary

Provide the summary information of all the industry validations in table. This is not required for OEM qualifications.

S. No	Organization Name	Representative Name	Designation	Contact Address	Contact Phone No	*E-mail ID*	LinkedIn Profile *(if available)*
1	Endurance Technologies Limited	M. Joshi		Pantnagar, Uttarakhand	05944-250132	corporate@endurance.co.in	
2	Lucas TVS			Pantnagar, Uttarakhand	05944-250244		
3	Sansera Engineering	D.C. Bist	GM-HR/Admin	Pantnagar, Uttarakhand	8027833442	info@sanseraindia.com	
4	Mahindra CIE			Rudrapur, Uttarakhand	05944-280921	Mciestampings.rdp@mahindracie.com	

5	Digitech Controls & Systems	Ajit Gate	Director	Shivane, Pune	9372157453	digitechcontrolsystems@gmail.com	
6	B. L. AGRO INDUSTRIES LTD	ASHISH KUMAR SAXENA	CHIEF MANAGER	PARSAKHERA, BAREILLY	9258211462	5S@BLAGRO.ORG	
7	Daksh Electronics Pvt. Ltd.	PRAMOD KUMAR	PRE-SALES MANAGER	Plot 5, Tenon Ln, Electronic City, Phase IV, Udyog Vihar, Sector 18, Gurugram, Haryana 122015	92891 49367	sales@dakshqlobal.com	
8	Digitech Controls & Systems	MR. AJIT GATE	CEO-FOUNDER	NDA Rd, Pandurang Industrial Area, Shivane, Pune, Maharashtra 411023	9850621072	digitechcontrolsystems@gmail.com	
9	Elektro Labs	RAVI KUMAR GUPTA	PROPRIETOR	Khasra No.#310, IInd Floor, Above HERO Tyre Showroom, Chilla Village, Mayur Vihar Phase -1, East Delhi, Delhi-110091.	8527924849	elektrolabs2015@gmail.com	
10	Eletech LAB INSTRUMENT	Krishan Kumar	PROPRIETER	1190, 1st Floor, Bengali Mohalla, Ambala Cantt-133001, Haryana	9034101751	infoeletechambala@gmail.com	

11	Eltko Labs Private Limited	Krishan Kumar	DIRECTOR	615, Unnamed Road, Ram Krishan Colony, Ambala Cantt-133001	9034101751	eltkolabs@gmail.com	
12	Euron Communications Private Limited,	ASHOK VERMA	DIRECTOR	Plot No. - 2, Oasis city Gangapur Road, Rudrapur, U.S.Nagar (Uttarakhand).	8171717155	euroncommunications@gmail.com	
13	Hi Tech System	Navneet Aggarwal	Proprietor	1217/18, Outer Large Road, Ambala Cantt - 133001, Haryana	9034184735	sales.hitechsystem@gmail.com	
14	JBM Auto Limited, Faridabad (JBM Group)	Rajeev Kumar Sharma	AVP - Head Skill Development, JBM Group	Plot No. 16, Sector 20 B, Faridabad - 121007 (HR)	8860281177	rajeev.sharma@jbmgroup.com	
15	Kunwar Construction	Sh. Ravi Kunwar	Proprieter	Near Shiv Mandir, Rai, Dharchula Road, Pithoragarh, Dist.-Pithoragarh	8449631734	ravikunwar11@gmail.com	
16	MASCOT FASTNERS PVT LTD	PANKAJ DAS	ACCOUNT	PLOT NO B-155, ESIPL, SITARGANJ	7500878668		
17	SHRIRAM SOLVENT EXTRACTION PRIVATE LTD	Surendra Kumar	MANAGER	VILL-DHYANNAGAR, KASHIPUR ROAD JASPUR (U.S NAGAR),	9837457434	surendrakumar@srse.in	

				UTTARAKHAND-244712			
18	Arrow Aviation	Sanjib De	Quality Managaer	53/1/3, Hazra Road, Kolkata - 700019	9831092407	qualitymanager@arrowaviation.com	
19	Unique Enterprises	Partha Roy	Proprieter	P.S.- Dasnagar, Howrah-711 13	98741 27130	partha@enterprisesindia.com	
20	SHIV ENGINEERS	S.Maity	Proprieter	BALITIKURI, HOWRAH - 711 113	7980872335	shivengineer1980@gmail.com	
21	SK Synthetics	MANISH JAIN	CEO	40 STRAND RD,3RD FLOOR KOLKATTA-700001	9331022044	SKSYNTHETICS@HOTMAIL.COM	
22	A. C. STEEL TRAIDING CORPORATION	A. C. JASWAL	PROPRIETER	BELILIOUS RD, LOAN BAZER, ROOM- 141, 142, HOWRAH-711101	9830073612	ACSTEEL_2004@YAHOO.CO.IN	
23	CALCUTTA TECHNO HEATERS (INDIA) PVT. LTD	M. K. SAHA	DIRECTOR	22A, DUM DUM ROAD, KOLKATA - 700 002	9831086241	MKSOCT55@GMAIL.COM	
24	MAX MILL Technologies	PRADEEP SHARMA	MANAGER	172/1, Ashokgarh, Dunlop, Baranagar, Kolkata-700108	7003462714	maxmilltechnologies@gmail.com	

25	SPECIAL ENGINEERING SERVICES LTD.	ASHIM GANGULY	JR. Factory Manager	16, COSSIPORE ROAD, KOLKATA-700 002	913325578434	sescatcn@cal2.vsl.net.in	
26	ABHAYA PRECISION INDUSTRIES PVT LTD	Abhesek Ghosh	Managing Director	70/2, YOURIBANI LANE, KOLKATA- 04	9831617997	MAIL@ABHAYAMD.COM	
27	SATYANARAYAN ENGINEERINGWORKS	NILANGSHU GHARUI	MANAGER	SHANPUR, DAONAGAR, HW-711105	7980278984	DATYANARAYANEGG@GMAIL.COM	
28	SHREE RADHA KRISHNA INDUSTRIES	MANI BHUSHAN SINGH	Proprieter	1/1d, Joy Krishna Ghosal Road, Aríadaha, Rathtala, Kolkata-700 057	9883368597	SHREERADHAKRISHNA21@GMAIL.COM	
29	NSCB AVIATION (P) LIMITED	SUBHASISH HALDER	DIRECTOR	34, Scout Para, Ganga Nagar, Kolkata 700132	8910627096	subhasish.haldar@nscbaviation.com	
30	SSK PRECISION COMPONENTS Mfg. Put. LTD.	SOUVIK SINHA	DIRECTOR	P31, KB. Roy Garden, Garia Station Road, Kolkata-84	9831065851	SSKCNC@REDIFFMAIL.COM	

Annexure IV: Training & Employment Details

Training and Employment Projections:

Year	Total Candidates		Women		People with Disability	
	Estimated Training	Estimated Employment Opportunities	Estimated Training	Estimated Employment Opportunities	Estimated Training	Estimated Employment Opportunities
2023-24	500	400	50	40	-	-
2024-25	750	600	75	60	-	-
2025-26	1000	800	100	80	-	-

Data to be provided year-wise for next 3 years

Training, Assessment, Certification, and Placement Data for previous versions of qualifications:

Qualification Version	Year	Total Candidates				Women				People with Disability			
		Trained	Assessed	Certified	Placed	Trained	Assessed	Certified	Placed	Trained	Assessed	Certified	Placed
1.0	2020-21	0	0	0	0	0	0	0	0	0	-	-	-
1.0	2021-22	22	22	22	18	0	0	0	0	0	-	-	-
1.0	2022-23	0	0	0	0	0	0	0	0	0	-	-	-

Applicable for revised qualifications only, data to be provided year-wise for past 3 years.

List Schemes in which the previous version of Qualification was implemented:

1. Fee based Training Program under the Ministry of MSME.

Content availability for previous versions of qualifications:

☒ Participant Handbook ☒ Facilitator Guide ☒ Digital Content ☒ Qualification Handbook ☐ Any Other:

Languages in which Content are available:

English

Annexure V: Blended Learning

Blended Learning Estimated Ratio & Recommended Tools:

Refer NCVET "Guidelines for Blended Learning for Vocational Education, Training & Skilling" available on: *https://ncvet.gov.in/wp-content/uploads/2023/01/Guidelines-for-Blended-Learning-for-Vocational-Education-Training-Skilling.pdf*

S. No.	Select the Components of the Qualification	List Recommended Tools – for all Selected Components	Offline : Online Ratio
1	☒ Theory/Lectures- Imparting theoretical and conceptual knowledge	Books/e-books, Presentations, Reference Material, Audio/Video Modules with 2D and 3D animation Self-Learning Videos /Broadcasts/Mobile Learning/Curated Digital content	40:60
2	☒ Imparting Soft Skills, Life Skills, and Employability Skills/Mentorship to Learners	Self-Learning Videos, Broadcasts, Mobile Learning, Curated Digital content	40:60
3	☒ Showing Practical Demonstrations to the learners	PCB, Signal Tester, Winding Machine, Soldering Kit, Drilling Machine, Video Content, E-Resource library	100:0
4	☒Imparting Practical Hands-on Skills/Lab Work/Workshop/Shop floor training	PCB, Signal Tester, Winding Machine, Soldering Kit, Drilling Machine	100:0

5	☒Tutorials/Assignments/Practice	Online Question Bank, Mobile Quick test app, MCQ based tests, Practical Test on Equipment	40:60
6	☒Proctored Monitoring/Assessment/Evaluation/Examinations	Assessment engine for Essays, Up-loadable file examinations, Mock test sessions	50:50
7	☒On the Job Training (OJT)	Live Project on Electronics Equipments, Measuring Instruments at concern Industry/Institution	NA

Annexure VI: Detailed Assessment Criteria

Detailed assessment criteria for each NOS/Module are as follows:

NOS/Module Name	Assessment Criteria for Performance Criteria/Learning Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
NOS/Module: **MSME/EET/01** Acquire the concepts of Electronic Devices & Circuits	PC.1 Observe safety precautions while working. PC.2 Explain DC series and DC parallel circuits and its utility in electrical technology. Use and simulate cycles using various controls. PC.3 Analyze parameters for various machining cycles and operations. PC.4 Measure power and consumed electrical energy in any electric load. PC.5 Explain the working principles of cells and batteries. PC.6 Describe basic principles of electro statics and electro dynamics. PC.7 Explain fundamental of AC, sinusoidal curve, alternating quantity, cycle, time period, frequency, instantaneous value, maximum value, average value, RMS value.	100	100	-	-

	PC.8 Explain fundamental of AC, sinusoidal curve, alternating quantity, cycle, time period, frequency, instantaneous value, maximum value, average value, RMS value. PC.9 Identify, test and find the resistance of a resistor. PC.10 Identify, test and find the capacitance of a capacitor. PC.11 Know the use of capacitor. PC.12 Manufacture RF coils. PC.13 Test inductors and RF coils. PC.14 Manufacture and test transformers. PC.15 Explain the electron transport in semiconductors. PC.16 Explain the operating principle of PN junction. PC.17 Identify and test different types of diodes. PC.18 Test transistor. PC.19 Assemble the amplifier circuit. PC.20 Explain lathe machine. PC.21 Describe the lathe machine parts & accessories. PC.22 Describe the different oscillator circuits. PC.23 Assemble various oscillator circuits. PC.24 Test proper working of the oscillator. PC.25 Explain the theory of ripple factor, regulation and efficiency of a power supply. PC.26 Assemble different types of rectifiers (half wave, full wave, bridge. PC.27 Explain the pin diagram and working of UA741. PC.28 Precautions during handling of Electronic ICs. PC.29 Explain the use of clipping and clamping circuits.				

NOS/Module: **MSME/EET/02** Learn and apply Industrial Instrumentation Techniques	PC.1 Define transducer. PC.2 Explain the use of transducers. PC.3 Use various amplifiers as per the requirements. PC.4 Understand concept of hardware & software. PC.5 Identification and testing of different types of thyristors. PC.6 Highlight the application areas of different thyristors. PC.7 Know the specification of a relay. PC.8 Test relays. PC.9 Explain the use of relay in electronic circuits. PC.10 Test different types of optoelectronic components. PC.11 Explain the use of different circuits controlled by optoelectronic components. PC.12 Draw the PLC architecture diagram. PC.13 Enumerate the application of PLC in industry.	100	100	-	-
NOS/Module: **MSME/EET/03** Electronics Equipment Repair & Maintenance Skills	PC.1 Plan for preventive maintenance. PC.2 Rectify faulty system. PC.3 Breakdown maintenance. PC.4 Calibrate the electro technical equipment.	100	100	-	-
NOS/Module: **MSME/ES/01** Employability Skills	PC.1 Understand the significance of employability skills in meeting the job requirements PC.2 Identify constitutional values, civic rights, duties, personal values and ethics and environmentally sustainable practices. PC.3 Explain 21st Century Skills such as Self-Awareness, Behavior Skills, Positive attitude, self-motivation, problem-solving,	100	-	-	-

	creative thinking, time management, social and cultural awareness, emotional awareness, continuous learning mindset etc. PC.4 Speak with others using some basic English phrases or sentences PC.5 Follow good manners while communicating with others PC.6 Work with others in a team PC.7 Communicate and behave appropriately with all genders and PwD PC.8 Report any issues related to sexual harassment PC.9 Use various financial products and services safely and securely PC.10 Calculate income, expenses, savings etc. PC.11 Approach the concerned authorities for any exploitation as per legal rights and laws PC.12 Operate digital devices and use its features and applications securely and safely PC.13 Use internet and social media platforms securely and safely PC.14 Identify and assess opportunities for potential business PC.15 Identify sources for arranging money and associated financial and legal challenges PC.16 Identify different types of customers PC.17 Identify customer needs and address them appropriately. PC.18 Follow appropriate hygiene and grooming standards. PC.19 Create a basic biodata PC.20 Search for suitable jobs and apply PC.21 Identify and register apprenticeship opportunities as per requirement				

	Total Marks	**400**	**300**	**-**	**-**

Annexure VII: Assessment Strategy

This section includes the processes involved in identifying, gathering, and interpreting information to evaluate the Candidate on the required competencies of the program.

Mention the detailed assessment strategy in the provided template.

1. Assessment System Overview:

- Batches are assigned to the MSME NSQF Assessment Agency via email for the assessment.
- MSME NSQF Assessment Agency sends the assessment confirmation to respective TC.
- MSME NSQF Assessment Agency deploys the certified Assessor for executing the assessment at respective TC via online / offline mode.
- MSME NSQF Assessment Agency & respective TC Internal Assessment cell monitors the assessment process & records.

2. Testing Environment:

- MSME NSQF Assessment Agency confirms the Assessment location, date and time
- For number of candidates more than 30 separate assessors are assigned for the assessment.
- MSME NSQF Assessment Agency & respective assessor confirms that the allotted time to the candidates to complete Theory & Practical Assessment is correct.

3. Assessment Quality Assurance levels/Framework:

- Each TC Submits the Question Bank for the individual subject Theory & Practice separately, submits to MSME NSQF Assessment Agency and it is verified by the MSME NSQF Assessment Agency Committee members.
- Questions are mapped to the specified assessment criteria
- All the assessors & Trainers are well qualified & trained to carry out the specified task.

4. Types of evidence or evidence-gathering protocol:

- Online Link is send by MSME NSQF Assessment Agency to respective TC & Assessor. Reporting of the assessor from assessment location is verified by the MSME NSQF Assessment Agency through the online Meeting Link. Students are also required to join for the online link for verification by the MSME NSQF Assessment Agency.
- Assessment Photographs are shared with the MSME NSQF Assessment Agency & are also with the respective TC.

5. Method of verification or validation:

- Online Link is send by MSME NSQF Assessment Agency to respective TC & Assessor. Reporting of the assessor from assessment location is verified by the MSME NSQF Assessment Agency through the online Meeting Link. Students are also required to join for the online link for verification by the MSME NSQF Assessment Agency.

6. Method for assessment documentation, archiving, and access:

- The Assessment records are shared with MSME NSQF Assessment Agency & also stored at respective TC.
- Assessor fills the assessment report and shares with the MSME NSQF Assessment Agency.

On the Job Training:

- Each module will be assessed separately.
- The candidate must score 60% marks to successfully complete the OJT.
- Learner will be assessed on the basis of OJT report followed by Viva
- Assessment will ensure that the Learner is able to:
    - ✓ Effective engagement with the customers / Subordinates and team
    - ✓ Understand the working of various tools and equipment
    - ✓ Understand the working environment of the industry

Annexure VIII: Acronym and Glossary

Acronym

Acronym	Description
AA	Assessment Agency
AB	Awarding Body
ISCO	International Standard Classification of Occupations
NCO	National Classification of Occupations
NCrF	National Credit Framework
NOS	National Occupational Standard(s)
NQR	National Qualification Register
NSQF	National Skills Qualifications Framework
OJT	On the Job Training

Glossary

Term	Description
National Occupational Standards (NOS)	NOS define the measurable performance outcomes required from an individual engaged in a particular task. They list down what an individual performing that task should know and also do.

Qualification	A formal outcome of an assessment and validation process which is obtained when a competent body determines that an individual has achieved learning outcomes to given standards
Qualification File	A Qualification File is a template designed to capture necessary information of a Qualification from the perspective of NSQF compliance. The Qualification File will be normally submitted by the awarding body for the qualification.
Sector	A grouping of professional activities on the basis of their main economic function, product, service or technology.
Short Term Training (STT)	STT/ Short -term skilling means any vocational training program undertaken for less than a year (Theory + Practical + OJT). https://ncvet.gov.in/sites/default/files/NCVET.pdf